GUIDELINES FOR WRITING LAB REPORTS

1. All reports must be typed using a word processor on a microcomputer, such as those available in the computer labs in the Rickey Science Center. Use a 12pt font, 1" margins all around, and double-space your text.

2. Each student must write an independent lab report. Lab partners are encouraged to discuss the results of lab exercises, but each student must write a COMPLETELY INDEPENDENT report. Plagiarism may be rewarded with a failing grade (for the paper or the course), at the instructor's discretion.

3. Lab reports must follow the format outlined below and described on the following pages.

Introduction
- Background Information
- Purpose
- Hypothesis

Procedures

Results
- Tables and Figures
- Description of Data

Discussion
- Conclusions
- Explanation of Results
- Future Experiment

Literature Citations

Grading of Lab Reports

Your instructor will be asking the following questions while grading your lab report. You should review these questions while writing and proofreading your report.

1) Has the student read and followed the lab report guidelines?
2) Does the report follow the correct format? Is each section title clearly labeled?
3) Are information and ideas placed into the appropriate sections?
4) Be the report checked for grammar, punctuation; and speling?
5) Have sources of information been correctly cited and referenced?
6) Does the Background Information section present sufficient relevant background information?
7) Has the 3rd person passive voice been used consistently in the Procedures and Results sections?
8) Are the correct types of information placed in the "Description of Data" and "Explanation of Results" sections?
9) Have the results been thoroughly explained in the Discussion section?

How to write an Introduction section

The Introduction section should include the following three sections. Remember to use a 12pt font, 1" margins all around, and double-space your text.

Background information. This section presents information that familiarizes the reader with the subject of the experiment.

What to include: A well-written introduction should present information about all the topics directly pertinent to the experiment. The Introduction section of the lab exercise provides a brief summary of many of the relevant subjects.

How to write: Use well-structured paragraphs beginning with a topic sentence that expresses ideas in your own words.

How to organize: Organize the information from the broadest topics that help to establish relevance, to more specific topics pertaining directly to the experiment. For example the paragraphs might be sequenced to explain:

First:

- Why a nonscientist would be interested in the topic.
- How the topic relates to human concerns.

Later:

- The type of organism used in the study and why.
- Background information on topics the reader should know to understand the basis for the experiment and its results.

Near the end:

- The variable tested and why it may have an effect.
- What previous investigations have found.

How to use source information: Never directly copy or quote sentences from your sources. Ideas should be conveyed in your own words, and the source of this information should be **cited** and **referenced** (see description of Literature Citations below).

Purpose. In a few sentences explain why the experiment was performed –what was the scientific "problem" being studied and the objectives of the exercise. There are usually a number of purposes to the lab exercise. Some purposes are educational in nature, such as to learn about experimental design.

Hypothesis. Remember, a hypothesis is one possible explanation of observations or information. Whether your hypothesis is correct or not is irrelevant to your grade; frequently the best lab reports are those that clearly explain why the hypothesis is incorrect.

The next page presents a sample Introduction section.

Sample Introduction section

Section headings are included.

Introduction

Background Information

Environmental pollutants have had dramatic effects on water quality of rivers and streams, although the effects are not always obvious. One approach is to monitor the numbers of certain aquatic insects that are sensitive bioindicators of water quality (Surdick and Gaufin, 1978, 3).

Intro begins with broad topic that establishes relevance.

Stoneflies are insects that spend their larval stages in the water. The larval stages, which can last for up to 2 years (Merritt and Cummins, 1987, 65), have been used as indicators of water quality in streams (Surdick and Gaufin, 1978, 3). Stoneflies are normally found in association with clean water (Hilsenhoff, 1977, 6; Hilsenhoff, 1987, 31). Although a number of factors affect their distribution, the limiting factor in freshwater seems to be the availability of oxygen (Olive and Smith, 1975, 34). Stonefly numbers are reduced whenever siltation is present (Surdick and Gaufin, 1978, 8). It is hypothesized that the silt covers the delicate gills (Hilsenhoff, 1987, 6); mayflies, which also have delicate external gills, are similarly affected (Hubbard and Peters, 1978, 8).

There is no direct quotation of sources;. Information is rewritten in your own words.

All sources of information are cited using correct format, at the end of each sentence containing the cited information.

Stoneflies increase the flow of water over their gills in times of oxygen stress by doing a respiratory movement called "push-ups" (Merritt and Cummins, 1987, 67). What cues do the stoneflies use? Is it a lack of oxygen in the water, an increase in water temperature, or a buildup of acid from respiration in their tissues that triggers respiratory movements? Increasing temperature both increases respiration rates (Schmidt-Nielsen, 1997, 235) and decreases oxygen availability (Smith, 1990, 203). Carbon dioxide is one product of respiration; in the blood dissolved CO_2 lowers pH (Schmidt-Nielsen, 1997, 235).

End of Introduction deals with more specific topics.

pH is a measure of hydrogen ion concentration, and ranges from 0 to 14 (Keeton, et al., 1993, 35). Adding CO_2 to water decreases the pH by forming carbonic acid (Smith, 1990, 204); removing CO_2 increases the pH (Smith, 1990, 204).

Purpose

The purpose of this experiment was to determine if lowered pH levels induce respiratory movements in stoneflies. Further, the experiment was an effective way to learn about pH, how to measure pH with a digital instrument, and how to determine correlation from a set of data.

The purpose section should identify the scientific and educational reasons for performing the experiment.

Hypothesis

Under uniformly high oxygen concentrations and at uniformly cool temperatures, stoneflies in lower pH water will have a greater number of respiratory movements.

The hypothesis should be a concise statement predicting what you expect to find in the experiment. Write this section in the ***future*** tense.

How to write a Procedures section

The objective of the Procedures section is to describe the experimental procedure in sufficient detail for someone else to replicate the same experiment. The instructions provided in the lab manual should not be copied verbatim; they should be rewritten to provide the essential elements of the procedure, leaving out trivial details.

Essential elements of a Procedures section:

1. Sentences should be written in the third person passive voice.

Incorrect: "I measured the number of tree rings in cross-sections of 9 spruce trees."
This sentence uses the first person active voice.

Correct: "The number and width of tree rings were measured in cross-sections of 9 spruce trees."
This sentence uses the third person passive voice. This style of writing is used to convey that the researcher was impartial and objective when performing the experiment and collecting the data.

2. All procedures should be presented clearly and accurately. The instructions of the lab manual should be rearranged to form well-structured paragraphs.

3. Include all parts of the procedure that you performed, leaving out unnecessary, trivial details.

Incorrect: "I obtained 10 grams of NaCl from the front bench and dissolved it in 250 ml of water in a glass beaker. The data were recorded in a table"
All of the underlined information is unnecessary;

Correct: "Ten g of NaCl were dissolved in 250 ml of water"
It is assumed that data are recorded. Note also that a sentence should not begin with an arabic number (i.e., "10").

4. Explain precisely how the data were collected.

For example: "The width of the tree rings was measured in millimeters using calipers while viewing the tree sections under a microscope."

5. Explain how calculations were performed.

For example: "The width of the tree rings was averaged for a 10 year span for all 9 trees.

The next page presents a comparison of lab manual instructions and corresponding procedures section of a lab report.

Sample Procedures Section

Original Lab Manual Procedure

Estimating the relative length of each stage of mitosis.
For this procedure, we will use permanently mounted slides of onion root. These slides are prepared by slicing the roots into thin sections, mounting them on microscope slides, staining and then mounting under a cover slip.

Locate the meristem region of the root tip.
1. Starting under the 10x objective, find the region of active cell division.
2. Switch to the 40x objective and begin observations at the lower end of this region.

Recording data
Students should take turns as **observer** and **recorder**. The observer should call out the stage of mitosis of each cell to be tallied by the recorder in the results table. Roles should be switched for the second slide. Since prophase and prometaphase are difficult to distinguish, classify these cells as prophase. **Only count as prophase cells that contain distinctly visible chromosomes.**
1. Systematically scan the root tip moving upward and downward through column of cells.
2. Tally each cell in a stage of mitosis that you observe, being careful not to record the same cell twice. Tally the stages of 20 mitotic cells.
3. Tally numbers in the table below. Each group member should tally cells from a different slide.

Calculations
1. Pool your data with that of the class, and then record the class totals in the table provided below.
2. Calculate the percentage of cells in each stage.
3. The relative time spent in each stage is equivalent to the percentage of cells found in that stage.

Do not include procedures that you did not perform

Do not have numbered steps in your procedure section

Rewritten as a lab report Procedures section

Procedures.

The relative time period of different stages of mitosis was determined using permanently mounted slides of stained onion roots tips (Marietta College Biology Department, 2011, rtm-4). Cells in different stages of mitosis were identified and counted as follows. The permanently mounted onion root tip slide was scanned using a microscope under the 10X objective until a region of active cell division was located. The cells were then viewed under the 40x objective. The root tip was scanned for cells in mitosis by moving up and down columns of cells, assuring that each cell was recorded only once. Each time a cell in mitosis was found, the stage was identified. Only cells that had distinct chromosomes were classified as being in prophase. The root tips were scanned until 20 mitotic cells were tallied.

The cell counting procedure was repeated by a second individual who counted another 20 cells from a different slide. Therefore we counted a total of 40 cells.

Calculations were performed for data pooled from six separate counts of 40 cells. The percentage of cells in each stage was calculated, and the relative length of each stage was equivalent to the percentage of cells in each stage.

Each paragraph begins with a topic sentence.

All sentences are written in the "third person passive voice".

Leave out unnecessary information, such as where supplies were located in the lab.

Never repeat procedures. Describe the basic procedure once, and explain differences later, as necessary.

Always describe how calculations were performed.

Rewrite the original instructions in a clear, logical and concise sequence. The order instructions are given in the lab manual are not always the best for a Procedures section.

Procedures Sentence Rewrite Exercise

Name: _____

Read the section on writing procedures, before doing this exercise. Rewrite each sentence so that they express the ideas clearly, grammatically, and using the third person passive voice.

1. In the Rewritten Lab Procedures on the previous page there is a sentence written in the wrong tense. Find the sentence and rewrite it correctly.

2. *I obtained 3 g of spinach leaves and ground them in a mortar and pestle.*
(Rewrite and explain why "obtained" is unnecessary)

3. *2 g of KCl and 2 g of NaCl were weighed out using the scale on the back bench and then each dissolved in 5 ml of H_2O in separate test tubes.*
(This sentence is excessively wordy with unnecessary trivial details and grammatically incorrect. Rewrite fixing all of the problems.)

4. *Place iodine on the slide, stain the sample for 1 minute.*
(This sentence uses the wrong tense and has a 'comma splice' –two independent clauses need a conjunction, or to be separate sentences.)

5. *This procedure sought to count the number of algae in the sample.*
(Procedures do not 'seek' to do things.)

6. *1. The instructor prepared the yeast suspension.*
2. The sample was to be viewed under the 40x objective of our microscope.
3. We placed a drop of the yeast sample on a microscope slide.
(Reorganize, remove numbering and unnecessary information, and rewrite as a single sentence using correct tense.)

7. *We counted the number of cells in 12 squares and recorded the number in the table.*
(Rewrite and explain why "and recorded the number in the table" is unnecessary)

How to write a Results section

The scientific data is presented in this section. This includes both **qualitative** observations and **quantitative measurements**. You should include any observations that have bearing on the interpretation of the results (interpretation of the data are presented in the Discussion section).

Essential elements of a Results section:

1. Numbers should never stand alone —they must be accompanied by appropriate units (e.g. ml, cm, cm/sec, etc.). Decimal numbers should always have at least one numeral before the decimal point (0.47g not .47g). Superscripts and subscripts should be used when needed; for example: 25°C, $80cm^2$, and H_2O.

2. There are two sub-sections of the Results:
   I. Tables and Figures
      Presentation of data in properly structured graphs and tables.
   II. Description of Data
      This is a paragraph-structured description of the data –in effect, narrate to the reader.

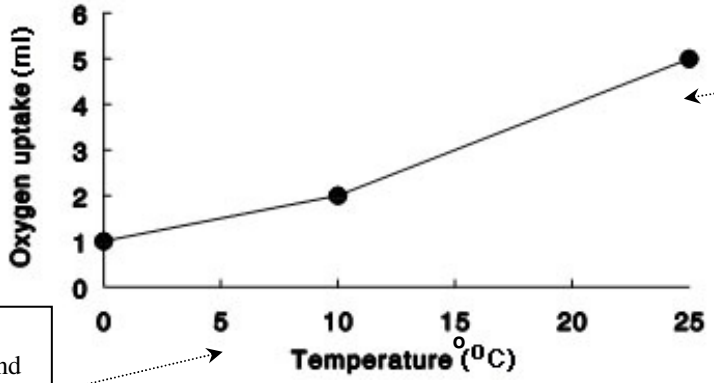
3. Characteristics of Tables and Figures
   A correctly prepared graph should:
      1) be sequentially numbered (Figure 1, Figure 2, etc.)
      2) have a **descriptive** title
      3) have the **independent** variable on the **x-axis**
      4) possess clearly labeled axes
      5) have data points that are clearly marked.
   A correctly prepared table should:
      1) be sequentially numbered (Table 1, Table 2, etc.)
      2) have a **descriptive** title
      3) have rows and columns clearly labeled.

4. The Description of Results section should:
   - Be written in the third person passive voice.
   - Describe the key features and trends that you perceive in the data presented in the figures and tables.
   - Not interpret the data. Explaining what the results mean or why the results occurred is done in the Discussion section of the lab report.

Examples of a correctly prepared Graph and Table.

Figure 1. Oxygen uptake by barley seeds measured at different temperatures.

Figure number and title.



Data points clearly marked and connected by a line.

Titles and units presented for X and Y axes.

Paragraph topic sentence.

The description of this data might be:
Figure 1 presents the uptake of oxygen by barley seeds over a five minute period. Temperatures tested ranged from 0 to 25 degrees Celsius. At the lowest temperature, no oxygen uptake occurred. As the temperature was increased, oxygen uptake by the seeds increased in a linear fashion, to a maximum value of 5 ml O_2 at 25 ^{O}C.

Description of key values and trends.

Table 1. Effect of different pollutants on *Chlorella*.

Table number and title.

Ecosystem	# of cells 10^6/ml	% of control
control	20	--
pollutant 1	23	115%
pollutant 2	3	15%
pollutant 3	10	50%
pollutant 4	19	95%

Headings neatly formatted.

Paragraph Topic sentence.

It is OK to include some procedures to clarify the results.

The description of this data might be:
The effects of the four pollutants on algal cell growth was also investigated. The number of *Chlorella* cells remaining after twenty days growth with each pollutant is shown in Table 1. The control (grown in spring water only) contained 20 x10^6 cells per ml. Pollutant 2 had the most dramatic effect, reducing the cell count to 3x10^6 cell/ml (15% of the control). Pollutant 3 reduced the cell count to 10x10^6 cells/ml (50% of the control). Pollutants 1 and 4 had very little if any effect, yielding 115% and 95% of the control, respectively.

Description of key values and trends.

How to write a Discussion section

1. The Discussion section includes three subsections:
   Conclusions
   Explanation of results
   Future experiment

2. Conclusions. In a sentence or two, state whether the hypothesis is supported by the results or not. Identify any other conclusions pertaining to the hypothesis based upon the results of the experiment.

3. Explanation of Results. In this section you should explain and interpret your results and relate your results to information presented in the Background Information section and to other literature sources.

What are interpretations of results?

- Explanations of why or what caused the results to occur; and/or why did the results supported or contradicted the hypothesis. As stated above, an incorrect hypothesis will not tarnish your lab report, so you should explain the discrepancy based upon biological principles.
- Suggestions and proposals of new biological principles and relationships.
- Comparing and contrasting with results and conclusions of previous studies.

Interpretations of results should draw upon and **cite information** from the literature sources, and should not be vague unfounded 'notions' that happen to 'pop' into your head.

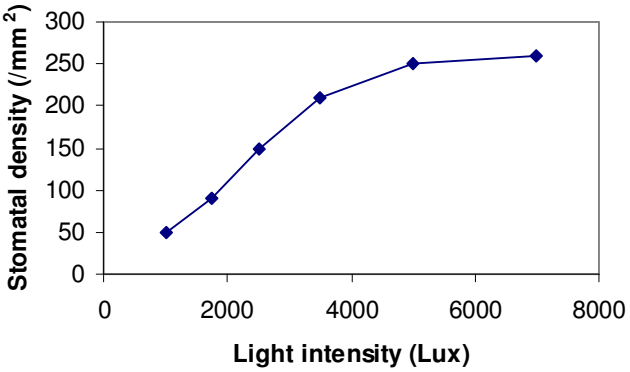
A poor Explanation of Results focuses on (for example) "experimenter errors" as a substitute for actually discussing the scientific meaning of the results in context of prior knowledge (from cited literature sources) about the topic.

4. Future experiment. This section shows how well you understand the experiment and its results. In no more than two paragraphs, explain how another experiment might help to answer questions raised by the current experiment. Usually, the results of one experiment provide the basis for future related experiments, possibly in which other variables are studied. Be sure to state the **purpose** of the future experiment, but do not include a lengthy description of procedures.

Comparison of Description of Data and Discussion (abbreviated examples!)

Results

Figure 1. Effect of light intensity on stomatal density



Description of Data

The number of stoma per unit area in response to light intensity was determined. Soybean leaves were grown from seedlings under light sources of different intensities for 3 weeks. Between light intensities of 1000 and 7500 Lux, the density of stomata increased about 5-fold (Figure 1). Between light intensities of 1000 and 5000 lux the stomatal density increased somewhat linearly to about 225 stoma / mm^2. Above 5000 lux, the stomatal density tended to level off around 250 stoma / mm^2.

Discussion

Conclusions

The data did not support the hypothesis that increasing light intensity would cause a decrease in the number of stomata. Instead, between 1000 and 5000 lux, the stomatal density increased proportionally with the light intensity.

Conclusion relative to hypothesis.

Explanation of Results

It was expected that light intensity would cause a decrease in the number of stomata. Instead the opposite relationship was observed (figure 1). It is possible that the increase in the number of stomata was due to an increased rate of photosynthesis.

Proposed explanation of results.

The function of stomata is closely related to photosynthesis. Mesophyll cells are the most important cells for photosynthesis in the leaf and need a source of CO_2 (Raven et al., 2008, 737). Somata form pores in the leaf to allow exchange of CO_2 and water through the leaf cuticle layer to the underlying mesophyll cells (Buchanan et al., 2000, 651). Photosynthesis also increases as the amount of light increases (Rabinovich and Govingee, 1995, 223), and it is possible that more stomata allow higher rates of photosynthesis to occur.

Literature sources to support explanation.

Other researchers have reported that stomatal density corresponds to other environmental factors, such as humidity and CO_2 concentration (Fraser et al., 2008, 773). Furthermore, mutant plants with abnormally high numbers of stomata were observed to have higher rates of photosynthesis.

Comparison to previous research.

Future experiment

If the number of stomata does allow for more photosynthesis, then we should be able to measure this. The increase in photosynthesis could be measured directly, or by comparing the size and weight of the plants.

Future experiment builds upon results of this one.

How to write Citations and References

It is essential that you identify ALL sources of information and ideas included in your report. Do not be misled into believing that citations are only required for direct quotes. As stated above, sources should not be directly quoted in a lab report. You must, however, cite the sources of information and ideas that you express in your own words.

More information about citations and references can be found at:
http://www.marietta.edu/~biol/library/citation.html

1. Citations

'Citations' within the text of the report point to the original source of information, and are most commonly used in the Background Information and Explanation of Results sections. Footnotes or subscripts are not used to cite sources in scientific writing. Although the format used for citations varies among disciplines, the Biology Department requires the following format for all assignments:

(Author(s), year of publication, page #)

If the source has **a single author**, then the citation is written as:
For example: (Smith, 1992, 97)

If the source has **two authors**, then the citation is written as:
For example: (Smith and Jones, 1997, 184)

If the source has **three or more authors**, the abbreviation 'et al.' is used after the first author's name:
For example: (Smith et al., 1997, 184)

Proper Use of Citations

1) Citations must be accurate to the source of information – to the indicated article and page.
2) Citations should refer to a single page. This is **not acceptable:** "(Jones, 1997, 23 – 25)". If the referenced information begins on one page and continues on the next, just cite the first page. If distinct information is being cited from several pages, a different citation must be used for each.
3) Do not cite from abstracts, cite only from the full text of an article.
4) Do not cite only at the end of paragraphs; citations should be included throughout a paragraph to prevent ambiguity as to the source of information.
5) Every citation must also be listed in the Literature Cited; every source in the Literature Cited but actually be cited in the text.

For examples: look at the sample Introduction & Discussion sections above.

2. References

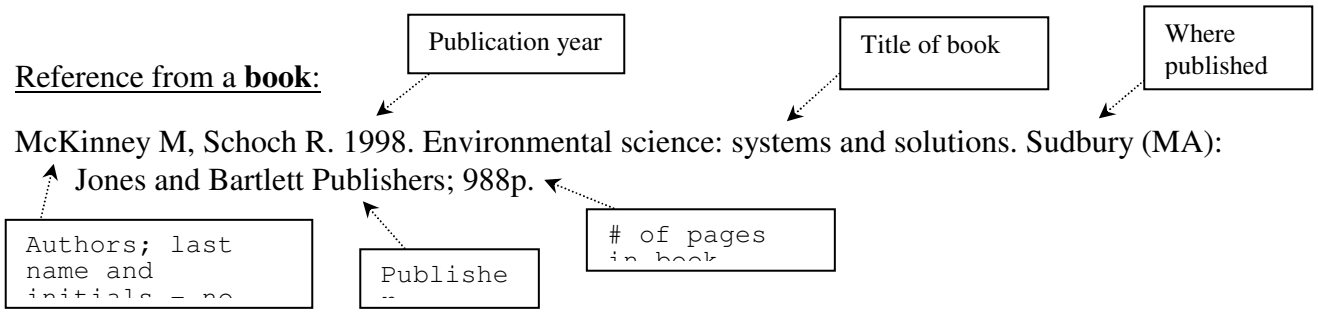
Citations point to 'references' listed in the "Literature Citations" section of the lab report, where the sources of the information are listed alphabetically.

For Intro level courses, acceptable sources include scientific articles published in books, science magazines and scientific journals. The course textbook and lab manual should only be used when specifically allowed by your instructor. Do not use mass media magazines and newspapers. Articles available online in pdf format (<u>but not HTML format</u>) are acceptable. (See discussion below about web resources.)

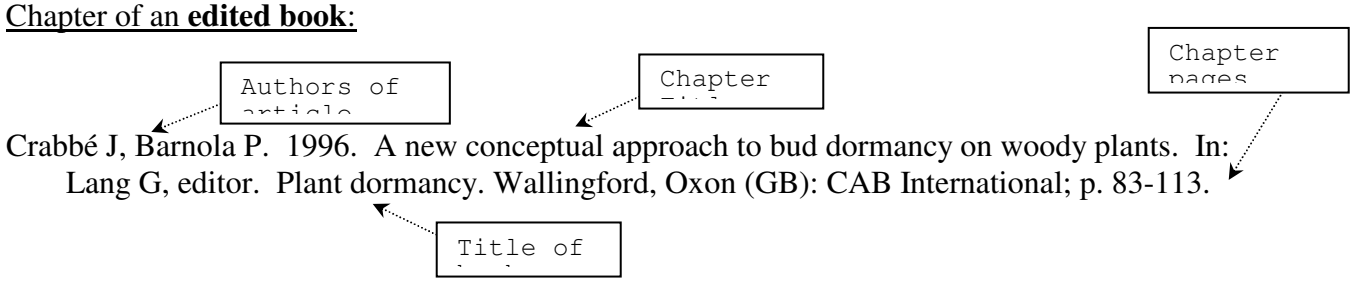
While the specific format for references varies among disciplines, however, **you must use the following formats for your lab reports:**

Note about use of "et al.": although 'et al.' is used in citations, it should <u>*never*</u> be used in the full reference provided in the Literature Cited section; all authors' names must be listed in the order they occur in the original paper.

<u>Reference from a **book**</u>:


Publication year
Title of book
Where published
McKinney M, Schoch R. 1998. Environmental science: systems and solutions. Sudbury (MA):
Jones and Bartlett Publishers; 988p.
Authors; last name and
Publishe
# of pages

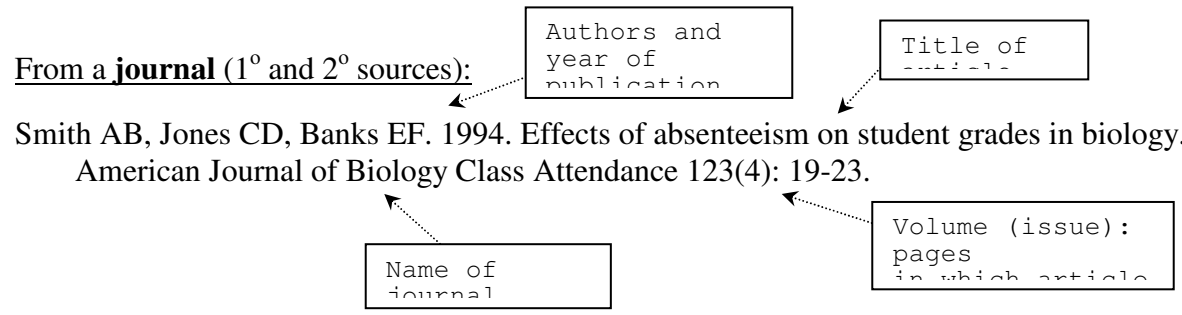
<u>Chapter of an **edited book**</u>:


Authors of
Chapter
Chapter pages
Crabbé J, Barnola P. 1996. A new conceptual approach to bud dormancy on woody plants. In:
Lang G, editor. Plant dormancy. Wallingford, Oxon (GB): CAB International; p. 83-113.
Title of

Marietta College Biology Department. 1996. Observation, ethograms and wall-seeking behavior. In: Introductory biology lab I manual. Marietta (OH): Marietta College; p. 345-359.

****The lab manual can be used as a reference only if allowed by instructor*****

<u>From a **journal** (1^o and 2^o sources):</u>


Authors and year of publication
Title of
Smith AB, Jones CD, Banks EF. 1994. Effects of absenteeism on student grades in biology.
American Journal of Biology Class Attendance 123(4): 19-23.
Name of journal
Volume (issue): pages

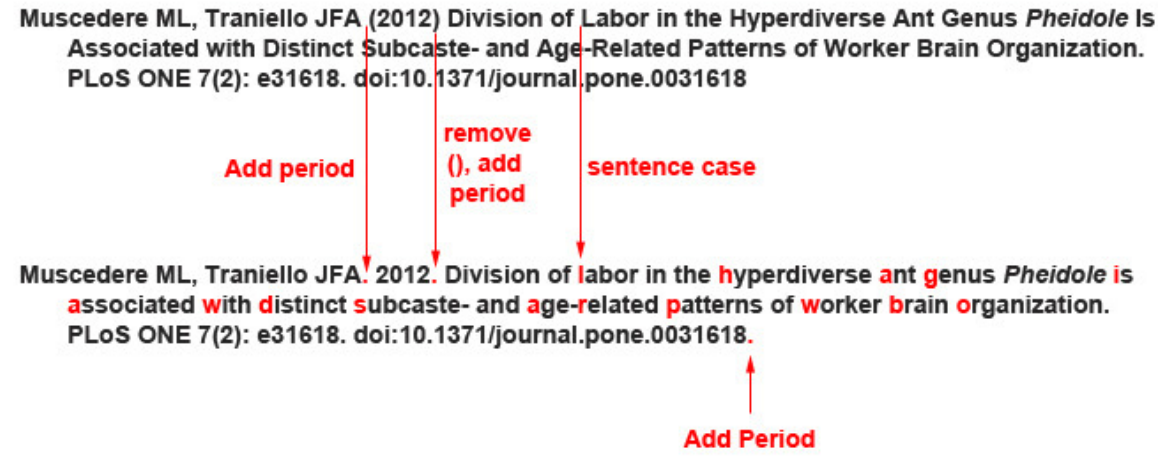
From a **magazine** (3° source) which does **not** use volume numbers (most DO):

Beckridge N. 1997. The parasitic wasp's secret weapon. Scientific American, November, 82-85.

[Note that for tertiary sources, sometimes the month of publication substitutes for the journal volume number]

From an **ONLINE ONLY Journal** (if the journal appears in print but you access it online, use the format ABOVE and cite it as if you were looking at the print version). If the journal is online only, use the format BELOW:

Converting a PLoS ONE citation into our format


Muscedere ML, Traniello JFA (2012) Division of Labor in the Hyperdiverse Ant Genus *Pheidole* Is Associated with Distinct Subcaste- and Age-Related Patterns of Worker Brain Organization. PLoS ONE 7(2): e31618. doi:10.1371/journal.pone.0031618
Add period
remove (), add period
sentence case
Muscedere ML, Traniello JFA. 2012. Division of labor in the hyperdiverse ant genus *Pheidole* is associated with distinct subcaste- and age-related patterns of worker brain organization. PLoS ONE 7(2): e31618. doi:10.1371/journal.pone.0031618.
Add Period

PLoS ONE is one of the new internet-only journals. There is no online equivelent, so the formatting is different as well. The citation as listed on the PLoS ONE site is close to our format. You can cut and paste from the web site, then make the changes shown above: put a period after the abbreviation of the last author, remove the parentheses from around the year and place a period after the year, and remove the excess capitalization from the title (leave only the first word and proper names capitalized). Place a period at the end of the citation. Other online-only journals should be treated similarly.

From **state or federal documents**:

Ohio EPA (Ohio Environmental Protection Agency). 1988. Biological criteria for the protection of aquatic life. Volume II, user's manual for biological field assessments of Ohio surface waters. Columbus (OH): Ohio EPA; 135p.

Smith RD, Ammann A, Bartoldus C, Brinson MM. 1995. An approach for assessing wetland functions using hydrogeomorphic classification, reference wetlands and functional indices. Wetlands Research Program Technical Report WRP-DE-9. Vicksburg (MS): US Army Corps of Engineers Waterways Experiment Station; 88p.

USDHHS (US Department of Health and Human Services), Center for Disease Control and Prevention. 1993. Fluoridation census, 1992. Atlanta (GA): CDC; 686p.

Example Literature Cited section

Literature Citations

Hilsenhoff WL 1977. Using a biotic index to evaluate water quality in streams. Technical Bulletin Wisconsin Department of Natural Resources, Number 132; 22p.

Government document

Hilsenhoff WL 1987. An improved biotic index of organic stream pollution. The Great Lakes Entomologist 20:31-39.

Journal article

Keeton WT, Gould JL, Gould CG. 1993. Biological science, 5th ed. New York (NY): W.W. Norton & Co; 1194 p.

Textbook (3^{O} source)

Kharman GIA, Frankel LP, Jackson JJ. 2002. Effects of acid deposition on two Adirondack streams. New York Academy of Science Proceedings 86:341-347.

Journal article

Merritt RW, Cummins KW (Eds.) 1987. An introduction to the aquatic insects of North America, 2nd ed. Dubuque (IA): Kendall/Hunt Publ. Co.; 722 pp.

Book

Surdick RF, Gaufin AR. 1978. Environmental requirements and pollution tolerance of Plecoptera. U.S. Environmental Protection Agency, Document 600/4-78-062.

Government document

Use of Web Resources

References to web pages (i.e., HTML) are *not* allowed in lab reports or term papers.

Web pages are notoriously short-lived, and a reference to a specific URL today is likely to not work (or no longer provide the referenced material) in the near future.
In general, if you print an online article and a URL is included at the top of the page, and/or the page numbers begin at '1' even though the article reference gives a different first page number, and/or there are hyperlinks to the figures and tables, then you are looking at an HTML version of the article.

If you are asked to do literature research, **on-line articles in pdf format can be used** because they retain the same formatting as the original print version. Pdf articles can be cited as described above for paper versions of articles.

References to web pages (only allowed for special assignments)

For some assignments you may be asked to search for information on the internet. A reference for such information must include, at a minimum, this information in following order:

1. Author of the web page or 'anonymous' if author is not identified.
2. Title of the web page from which the information was obtained. Follow title with [Internet].
3. Name of organization that prepared the web page, and, when present, the name of the company, government agency, or university that sponsors that organization. Sometimes this can only be found by inspecting the URL.
4. Date of page creation or last update: date cited [in brackets] i.e. [created 2008 May 15; cited 2008 Sep 14]. Sometimes this can be obtained directly from the page or through the 'View, Page Source' option on the pull-down menu.
5. URL (in parentheses) of the page.

URL, title and other information can be copied from browser to your document using the 'cut' and 'paste' functions.

Examples:

Franchesca P, Kjeldsen K, Hughey K. Algae: the forgotten treasure of tidepools. [Internet] Department of Biology at Sonoma State. [modified 1997 May 23; cited 1998 Oct 5] (http://www.sonoma.edu/biology/algae/algae.html).

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